

# **Community Assistantship Program**

## **Summary of Market Research on Nonformal Agricultural and Environmental Education Programs in Minnesota and Recommendations for Programming at Farmamerica**

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**Summary of Market Research on  
Nonformal Agricultural and  
Environmental Education Programs  
in Minnesota and Recommendations  
for Programming at Farmamerica**

Conducted on behalf of  
Farmamerica

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**CURA RESOURCE COLLECTION**

**Center for Urban and Regional Affairs  
University of Minnesota  
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## Purpose and Objectives of the Research

In July and August of 1999 a number of sites offering environmental, agricultural and historical programs and resources throughout Minnesota were contacted for the purpose of gathering information which may assist Farmamerica in developing an educational program plan. Specific objectives for the contacts were to obtain information on:

- Existing and forthcoming print or other resource materials
- Program formats and delivery techniques
- Educational curricula and the processes used in their development
- Program fees and costs
- Marketing strategies for reaching diverse audiences
- Use of professional staff, interns and volunteers in program development and delivery
- Organizations and individuals for potential collaborative program development and evaluation

In the majority of the cases, the sites were visited and a staff person with educational responsibilities was interviewed. In a few cases, the contact consisted of a phone interview with an appropriate person. Phone interviews were used in cases where I had previously visited the site and had a visual image to complement the information being gathered. For each contact, a summary form was completed which presents pertinent information on programming and resources available at the site. The contact forms, along with promotional and educational materials collected from the sites, are filed in folders by site name at the Farmamerica office.

Sites contacted include the following private and public organizations:

Center for Integrated Natural Resources and Agricultural Management (CINRAM), U of MN, St. Paul  
Dodge Nature Center, West St. Paul  
Eagle Bluff Environmental Learning Center, Lanesboro  
Farm in the City Camp, U of MN, St. Paul  
Forestville State Park, Preston  
Gibbs Farm Museum, St. Paul  
Mankato State University, Mankato  
Minnesota Agriculture in the Classroom, St. Paul  
Minnesota Department of Agriculture, statistics division, St. Paul  
Minnesota Institute for Sustainable Agriculture (MISA), U of MN, St. Paul  
Minnesota Landscape Arboretum, Chanhassen  
Minnesota Turkey Growers Assoc., St. Paul  
Minnesota Zoological Garden, Apple Valley  
Nerstrand Big Woods State Park, Nerstrand  
Oliver Kelley Farm, Elk River  
River Bend Nature Center, Faribault  
Wilder Forest, Marine on St. Croix

In addition to these contacts, I attended portions of the Midwest Environmental Education Conference held in Stillwater, MN between August 5-8. Program ideas and educational materials were gathered at the conference and are herewith incorporated. Materials collected at the conference include those coming from the following groups:

Biocorp  
E-Connection  
Environmental Protection Agency  
Farm Service Agency

Full Circle Institute  
International Wolf Center  
Leopold Education Project  
Minnesota Office of Environmental Assistance  
Natural Resource Conservation Service  
Seeking Environmental Education Knowledge (SEEK)  
Tree Trust  
Wisconsin Association for Environmental Education

This report serves to summarize the information gathered from the diverse sources. It is organized around seven main themes: program formats and curricula, program delivery, staffing, program fees, marketing strategies and tools, continuity between site characteristics and programs, and potential collaborators. A set of recommendations and a schematic program plan are also included in the report. An appendix provides a list of ideas for programs and programmatic organization which compliments the file information.

### **Program Formats and Curricula**

A diverse range of interpretive program types can be found at sites across Minnesota. Programming efforts can generally be broken down into four categories: school programs, special group programs, family/public programs and camps or retreats. All of the educational centers contacted offer day programs. Two sites have residential facilities and offer programming options that range from one to several days. The industry standard for non-residential programs seems to be 1-2 hours in length, with a predominance of 1½ hour programs. Residential facilities offer programs in longer 3 hour blocks. A visit to any particular site may involve one or more programs, depending on the desires of the visiting group.

The program format most often utilized is experiential and hands-on in nature, with the majority of programming taking place outdoors. Program participants are involved in everything from planting gardens, to feeding animals, to food production activities such as butter and jam making. Most often there are no take-home items from the programs. However, some programs allow participants to make items to carry home with them. The director at one site that still uses the tour format extensively noted that the site was moving toward more hands-on programming due to requests for this format. Camps and longer residential programs may include pencil and paper activities, videos, discussion sessions and other activities of varied format. The idea of using the service learning format for programming was in place at a limited number of sites. Through the use of this format, groups work at a program site over time to implement a particular project that will have broader community implications. For example, a youth group may help to establish and maintain a garden that will supply a local food shelf with fresh produce.

Although the majority of sites visited offer their programs on-site, many also offer off-site programs to area schools, special interest groups or nearby park visitors. Elementary school children make up the majority of program participants, numbering in the tens of thousands at nature center programs. For example, River Bend Nature Center in Faribault estimates that 15,000 school children attended programs there during the 1998-99 school year. Dodge Nature Center in West St. Paul, the Gibbs Farm in St. Paul and the MN Landscape Arboretum in Chanhassen each noted that approximately 30,000 students attended their programs in the same year.

Camp programs and day-long school break programs are being used successfully by some organizations. The demand for these longer, out-of-school programs seems to be sufficient to warrant them being developed. The same is true for weekend retreats or weekend programs for family or adult audiences. Interest in the programs is evident, but there are limited time slots that working adults and families have for recreational albeit educational programming.

All of the sites contacted developed their own curricula for programs. Programs were conceived and designed by education staff utilizing a variety of resources. Some places sporadically use pre-developed activities or activity modules. Many educators noted that they borrowed ideas from previously developed materials and modified them for use in their programs. The development of program curricula is a long-term process with continual evaluation and updating required. At one site where new agricultural curriculum is being developed, the process is expected to take approximately 1½ years before new curricula can be piloted.

There appear to be two styles for offering programs, standardized programs that are offered on a regular basis and custom-designed or one-time programs. Many sites offer both of these options, however, standardized programs are more numerous. Program catalogs and brochures inform potential visitors of their options.

With respect to school programs, two ways of developing and organizing curricula were observed. One organizational scheme involves the use of topical programs that can be modified for implementation with audiences of different ages. For example, program topics might include soil erosion, planting technology, milk production, etc. A basic soil erosion program curriculum would be developed such that it could be adjusted depending on the ages and knowledge of the program participants. A second organizational scheme utilizes the idea of a "graduated curriculum". In this approach, a program is developed specifically for groups of a certain age, e.g. second and third graders. Younger or older children would not be able to participate in the program, but other complementary programs are developed such that a child could conceivably attend regular programs at the center over a period of several years without repeating the subject matter. In this way, a graduated program leads children to higher levels of comprehension on related, but non-overlapping, topics. Both organizational schemes are being successfully implemented.

Custom-developed programs allow educational centers to cater to the needs of specific groups, generate extra income and educate people who may not ordinarily engage in this type of learning. Wilder Forest offers good examples of custom programming. The Wilder Foundation, of which Wilder Forest is a part, has a mission to serve disadvantaged and underprivileged sectors of society. As such, the Wilder Forest farm staff has developed a "one day in the life of migrant worker" program for a group of inner city youth to experience migrant farm work. They have also developed a farm life program for girl scouts, operate a unique community supported agriculture project where produce is given to area food shelves and have an immigrant gardening program that allows Hmong and Latino immigrants to grow ethnic foods. In some cases, the gardens at the farm become staging grounds for other environmental programs.

The sheer number of program ideas and concepts encountered was phenomenal. Some of these are listed in an accompanying appendix.

### Program Delivery

Most sites feel that good program delivery can be better accomplished with specified ratios of facilitators to participants and/or with the use of skilled facilitators. Some sites limit audience size, others require a certain adult to child ratio for delivery of youth programs and still other sites have no limits on numbers of program participants. The ratio of elementary students to adults is often around 10 to 1. A popular group size is 20-30 individuals; however, no consensus on optimal group size was gleaned from the site surveys. Group sizes of 100 or more elementary students are common at some sites, where they may be broken down into smaller groups rotating between program stops.

All sites require that program presenters and facilitators be well trained and skilled for their positions. Training in experiential techniques is a prerequisite at many sites. More information on training is found in the staffing section of this report.

It was previously mentioned that many organizations do both on and off-site programming. The delivery of the majority of on-site programs takes place during seasons that are optimal for outdoor activities: spring, summer and fall. Off-site programs tend to take place during the winter months. Off-site programs are also requested by groups that do not have the budget or facility to travel to outdoor learning centers.

A couple of centers have contracted with the county or school districts to deliver a pre-determined program or series of programs. For example, one center offers off-site recycling education to every school in the county. Another center delivers a historical program to a specified level of students. In the delivery of these programs, facilitators are well-trained to offer standardized information.

### Staffing

All centers contacted have paid educational staff on board. Many of the other organizations (not educational centers) have staff for educational material development, community outreach or community relations. Paid professional staff comprise the core of educational programming efforts. It is the paid staff who initiate curriculum development and evaluation, train interns and volunteers, as well as play an active role in program delivery. Most often, all staff are trained and expected to lead any program offered by the center. In some cases, special guests or volunteers have specific expertise and only lead programs in their specialty areas. Nature/environmental centers tend to designate one staff member as the chief naturalist or education program coordinator. This person oversees and coordinates the activities of three or more paid staff, four or more interns and a number of volunteers.

New staff and volunteers typically go through training exercises developed by more senior staff members. The training may involve an intensive course lasting from one to several weeks and often includes an on-the-job component where the new person will be paired with a more experienced staff member for a period of time.

Specifically with respect to volunteers, training may involve group sessions where a number of new volunteers are trained together. Hands-on activity practice is coupled with take-home printed reference materials for each volunteer. Volunteers do not facilitate programs at all the centers visited. They more often assist with crowd control, development of educational materials, site maintenance and clerical tasks. In situations where a volunteer is the primary program presenter, the person is well-experienced and often considered to be an expert in the field.

Depending on the program schedule of the center the staff size may fluctuate greatly throughout the year. Seasonal staff are most often hired as interns from a pool of traditional college-aged students. A typical internship lasts approximately four months or one standard semester. Interns are often brought on board one to three weeks in advance of the time they are expected to work independently so that training activities can take place. Compensation for interns comes in the form of direct remuneration, \$120-250 per week is common, plus housing. Housing is often provided on the center site in a refurbished house or in a special wing of a residential facility. Several interns will share bathroom, kitchen and living room space while each person will have their own bedroom.

Another form of staffing that is utilized by some centers is requesting short and long-term service volunteers through federal, state or other job programs. An Americorps volunteer was utilized at one site to develop a volunteer database, recruit new volunteers and help in their training. The Americorps

program places individuals at requesting sites for an initial period of one year. Based on volunteer satisfaction and site need, the volunteer may extend service to the organization for another year. Minnesota Conservation Corps crews have been used at several sites for site development projects such as trail construction, tree planting, land clearing, etc. This program brings teams of trained youth to sites for the summer. The Tree Trust, a private non-profit group, has a similar program that allows disadvantaged youth to work on outdoor projects. In most cases, remuneration for volunteers in these programs is provided by the hiring unit, not by the hosting organization.

The Farm in the City camp is a unique farm day camp initiated by the University of Minnesota in 1999. One individual was hired in February of 1999 to develop the camp curriculum, attend to all coordination and administrative duties and hire the summer camp educators. Although this person was based at the U of MN and worked in conjunction with an advisory committee, he worked independently until camp educators were hired in June. The seven educators attended a week of orientation and training and then participated in three weeks of camp activity and materials development before the day camp began. The staff of eight expected to serve a total of approximately 200 campers during the five weeks of camp.

### Program Fees

Fees for programs depend on a variety of factors, including site location and local demand for program services, length of the program, program content, materials or preparation required, outside financial support for programming efforts and quality of facilities and services. Not all centers have standard program fees, some have a sliding scale that is based on the ability of the visiting group to pay for services.

For school programs of 1-2 hours in length, fees ranged from \$2.00 to \$4.00 per person. One site had a standard charge of \$2.00 per person, but if the program presented was a demonstration, such as butter-making, an extra \$.50 per person was charged. Several sites had discounts for groups that wished to do more than one program during their visit or who came on repeat visits to the site over the course of the school year.

Public programs lasting 1-3 hours had fees of \$3.00 to \$12.00. Exceptions occurred when programs required special materials and extra fees were attached. Day camp fees were between \$60-\$100 for a five-day camp for elementary aged children.

The residential site visited indicated that most visits by school groups were three days in length. In a three-day visit, a group will typically participate in four three-hour programs. One program block would be on the first day, two on the second, and another one on the third. The standard charge for this length of visit is \$75.00 per person. This site also offered weekend retreats for adults. Retreats are not offered as a full package, but as a collection of individual events so that participants can choose to participate in and pay for as many or as few activities as desired. For example, participation in one natural history hike during a weekend costs \$5-\$12, whereas participation in all events scheduled for a weekend wild edibles retreat would be approximately \$70.00.

Most centers operate with some kind of membership structure. Members are offered substantial discounts on program fees and are often free to use the grounds for hiking and recreation in their leisure time. At one site, the program fee dropped from \$5.00 for non-members to \$3.00 for members. At another it dropped from \$12.00 for non-members to \$5.00 for members. Membership fees range from \$20-\$40 for individuals, with family fees being higher.

Some centers offer grants or provide general counsel to groups who do not have the budget to pay for programs or transportation to and from the program site. Center staff indicated that often the budget for transportation and that for programs are allocated independently of each other in school situations. Thus



a school may have funds for program participation but no funds for transporting the students to the program site. If counsel or financial assistance is made available, especially for first-time visitors, the school can often find the budget to participate in following years. This occurs primarily because of the positive experience the group has at the center.

Looking at the large scale financial picture, program fees make-up between 15-33% of a center's operating budget. Membership fees contributed an additional 38% at one center. At all private non-profit sites visited, grants and donations comprised a significant portion of the operating budget. Some sites had endowments established. Some also received regular inputs of cash from municipalities or other jurisdictional entities. In cases where cities or municipalities contribute significantly to the operating budget, the center is expected to first serve clientele from this area. Others will be served depending upon staff availability.

The Farm in the City camp received a substantial start-up grant for three years. This paid for initial development costs and the camp coordinator. The coordinator expected that camper fees (approximately \$20,000) would nearly pay for education staff wages of \$8.00 an hour in 1999.

### Marketing Strategies and Tools

The combination of strategies used by any one particular site to attract program participants is unique, however, many of the same strategies are used by different educational centers. One approach to reviewing these marketing strategies involves looking at the way they are used to attract the following diverse clientele groups: schools, special interest groups and the general public. Each is considered below.

#### Schools

The ways that educational and interpretive centers approach and solicit participation by schools depends on both the school and the center. Mass mailings may be used to target principals, teachers of certain subjects or those who teach certain grades. A common caution against the direct mail approach is that the letter may not end up in the hands of the person who is responsible for making decisions about out-of-school programs. Reaching the right person seems to depend on the set-up of the school. At some schools, the principal is the appropriate person to contact; at others it may be a science teacher, or the science fair project coordinator, or merely a teacher that has an expressed interest in the topics being presented by the center. Most educational coordinators note that a personal contact with a school is far better than the direct mail approach. The most effective marketing strategy noted was word of mouth by those who had positive personal interaction with programs at the center.

Critical tools for marketing programs to schools include informational pieces with program registration information, general information about the interpretive facility and program catalogs. The program catalog or listing of available programs contains a description of each program. Catalogs may also contain information about seasons in which a program is offered, age or grade levels for which a program is designed, and key subject areas, sometimes based on state graduation standards, that a program covers. Examples of program catalogs are found in the files for Dodge Nature Center, Eagle Bluff Environmental Learning Center, Minnesota Landscape Arboretum and River Bend Nature Center.

#### Special Interest Groups

Most centers accommodate special interest groups either in their regular program offerings or through custom designed programs. The drawing card for many special interest groups is an initial positive experience, perhaps through an individual who attended a public program or through a well-conceived special group program which becomes an annual or regular event. Informational brochures seldom mention custom programming, other than to note that specific needs may be accommodated upon request. Word of mouth advertising is critical. Non-program events, such as conferences and family reunions,

which are held on the interpretive site can help create visibility and may serve to attract other special interest groups to the site.

While many special interest groups emerge from local community and civic organizations, another kind of special interest group market is that of tour groups. International groups, elder hostels, special training groups or study tours on agriculture may be interested in making the interpretive site one stop on a larger tour of related sites. Marketing for this type of programming usually takes place through networking and collaboration with the local chamber of commerce, commodity associations, businesses and related organizations.

#### General Public

Public, or adult and family programs, are not usually the focal point of programming efforts. However, attracting the general public is important in terms of securing financial and in-kind donations, reaching out to parents of children who may be involved in school programs and providing the broader community with an additional source of learning and leisure activity.

One popular strategy for marketing a center to the public is through membership. Several creative ideas for membership categories were observed and included:

|                                               |                                                                                                                                                                                                       |
|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General membership<br>(individual and family) | Offers free entrance to sites and some events, reduced program fees, gift shop discounts and periodic newsletters or other publications                                                               |
| Individual + 1 membership                     | Allows the member to bring one guest per visit to the center grounds for activities typically included in the general membership fee                                                                  |
| Association membership                        | Offers free admission and discounts on events and programs at a number of affiliated or associated sites, plus regular member services for the site where the membership was established              |
| Educator's membership                         | Offers a limited number of educator workshops and specially prepared educational materials, in addition to regular member services                                                                    |
| Corporate or business membership              | Offers area industry and business opportunities to financially contribute on a regular basis in exchange for a specified number of program passes or programs developed specifically for the business |

Membership brochures detailing the levels of membership available are the most common marketing tool. Brochures sometimes have attached return cards or envelopes. Brochures are placed in prominent places at the center, at local supporting establishments and are enclosed in mailings explaining program options.

Providing opportunities for the public to volunteer can be used as an effective marketing strategy. Volunteer position descriptions are used at some sites to attract qualified and interested people. New descriptions help advertise site improvements and innovations. Training programs for volunteers may be seen by some as occupational or career development opportunities. Satisfied and fulfilled volunteers are great word of mouth advertisers for programs and events.

Marketing tools for family and adult audiences include radio announcements, newspaper articles and special publications. Centers noted that it is important to target your audience by setting the program at

the appropriate time of day an advertising in the setting appropriate for that audience. Popular adult and family programs are offered evenings and weekends. Workshop and retreat formats are preferred for programs lasting longer than one or two hours.

#### Continuity between Site Characteristics and Program Messages

Staff at several centers noted the importance of creating programs and developing site characteristics to portray and convey consistent themes and value perspectives. One example is the careful thought put in to the positioning of functional buildings at Wilder Forest. Facilities there are heated primarily with wood. The wood boiler is housed in a separate building surrounded by woods so that visitors will be reminded that the trees from some of the adjacent lands are serving to heat the facilities. The main kitchen door opens toward the garden areas in an attempt to illustrate the path that food takes from the fields to the dining table. Other centers have chosen to incorporate environmental or sustainability themes by using only corn-based tableware and flatware when needed for programs. Various ways of separating and composting waste, re-using materials and using innovative construction materials help centers home-in on their goals of sustainable use of natural resources and agricultural products. Innovative construction materials observed include wheat straw shelving, recycled paper counter tops, re-milled lumber flooring and turn-of-the-century windows used to increase lighting along interior walls. Use of old materials that are obtained locally and re-tooled makes for interesting interpretation.

Another approach used tries to maintain authenticity of ways or site attributes while making them understandable and safe to the public. Some sites that do living history do not use first person interpreters because of the difficulty of relating items and concepts to the public. Although period costumes are worn by staff, they speak in modern terms that allow them to easily interpret the site to the public. Other sites that try to preserve historic character do it in a somewhat more modern context. One farm that raises heritage breeds of chickens and pigs in a turn of the century barn has modified the interior of the barn so that it will be safer for children's programs. Egg laying boxes have been built at "kid's height" and have back entrance rubberized closures so that children can reach into the box to collect eggs. At this same interpretive site, the farm character is designed to reflect a mixed farm of the mid-20<sup>th</sup> century, however, all work at the farm is completed with modern machinery and implements. The message that staff hopes to convey is how mixed farming is somewhat reflective of natural biodiversity. Authenticity of farming methods is not an issue in this case. Another site that has chosen to refurbish a civil war era barn has put a modern hardwood floor in the loft and added kitchenette and bathroom facilities in what used to be the cattle barn. The interior of the barn, however, is all original lumber that was sandblasted to create a fresh, clean community meeting space.

The only site visited which used motorized vehicles to transport visitors was the MN Landscape Arboretum. The arboretum's main loop tour is three miles long and precludes many people from walking. All other sites noted that visitors walked around the facilities. Contact with the environment is seen as desirable so that visitors can directly experience what they are learning about using all of their senses. For example, if the program is about bees and honey making, walking around the site observing where bees forage is a critical aspect of understanding where honey originates. Similarly, if a program includes information about soils and fertility, a walk across gardens, areas with trees and different crop fields would illustrate differences in soil types. Comments made on the use of large interpretive sites suggested that it was not important to expose visitors to all the facilities in one program, rather it was felt that programs should focus on creating a thorough understanding of select concepts. Not only does this approach serve to draw people back to the interpretive site to see what they have not seen, but higher levels of understanding can be attained through subsequent visits.

#### Potential Collaborators for Program Development

Although most of the people contacted indicated a sincere willingness to pass on information, ideas and materials, three sites stand out as being particularly appropriate to collaborate with on program

development. These sites are Dodge Nature Center in West St. Paul, Eagle Bluff Environmental Learning Center outside of Lanesboro and Mankato State University. Both Dodge Nature Center and Eagle Bluff are in the midst of creating new curricula for sustainable agriculture programs for elementary and middle school children. Neither site focuses on historical interpretation, although the Dodge staff includes some historical aspects of farming in their current program offerings.

Dodge appears to be further along in its development process than Eagle Bluff; still, Dodge currently has just three or four programs developed that can be considered agricultural in nature. Their ambitious new agricultural project includes ideas for programs on farm mechanics/physics, water cycles and windmills, food chains on the farm, plant and animal genetics/breeding, as well as more traditional planting and harvesting programs. The education coordinator at Dodge expressed his willingness to share curricular ideas with Farmamerica.

The Eagle Bluff center is a good candidate for collaboration particularly because the Waseca school district and other neighboring districts send groups there for out of school programming. Although the Eagle Bluff agricultural program is still in its early formative stage, it seems wise to collaborate with the staff there so that there is not direct competition and duplication of services. I was not able to directly speak with the director of Eagle Bluff, but the staff indicated that he would be interested in meeting with Farmamerica educational staff.

It is felt that collaboration with these centers would greatly benefit Farmamerica. The two centers offer strong track records of attracting large numbers of program participants. Dodge Nature Center has a nearly thirty year history of environmental program delivery. It is similar to Farmamerica in that it is run as a private, non-profit foundation and has a historical farm site on the property. Eagle Bluff is situated in a rural area, yet still attracts large numbers of program participants. Together, the two sites offer a number of interesting perspectives for Farmamerica to consider in forging ahead with its educational program plan.

Mankato State University (MSU) offers opportunities for collaboration of a different nature. It can be viewed as a rich source of well-informed faculty and students eager to test out and apply their skills through coursework and internships. It seems pertinent to contact faculty in science and education to seek assistance in evaluation of plans and piloting of curriculum. Additionally, it should be noted that the city of Mankato does not have an environmental education facility or other outdoor classroom area. Creating strong ties between MSU and Farmamerica would be a good way to tap into the potential clientele base in Mankato.

### **RECOMMENDED PLANS FOR ACTION!**

What follows are my recommendations for creating and implementing an educational program plan at Farmamerica. I have listed them in order of the perceived importance I feel they have to programming efforts. The first three recommendations involve the critical step of creating pathways for program development and implementation to occur. The subsequent recommendations revolve around a conceptual program design that may be appropriate for Farmamerica to consider over a four to five year period. The conceptual design is based on the creation of standardized programs created for elementary school children and the public. Expansion plans continue to focus on standardized programs but for wider audiences and using more diverse subject matter. Custom programs for special audiences are added as staff numbers expand. As a precaution, it should be noted that the feasibility of implementing any conceptual design rests on the enthusiasm and ability of the people at the site for carrying it out. Careful consideration should be given to the first three recommendations so that any plan, whether this one or some modification of it, can be carried to fruition.

#### **Recommendation 1**

Hire a professional full-time educator to work on program development and implementation.

Someone skilled in nonformal, out of school, experiential education is most suitable. A background in agriculture, agricultural history and natural resources or environmental management is desirable. A Minnesota native or long-time resident would most likely add special knowledge and credibility to the program. The person should be skilled in managing both programs and the people needed to implement them.

The major tasks of this person would *initially* be to:

- Implement modified school tours
- Organize the volunteer base for more standardized and streamlined program delivery and assistance in new program development
- Modify and refine any existing educational program plans so that they match with the skills and expertise of the hired individual
- Oversee the development of promotional publications and newsletters describing educational developments
- Develop and assist in the implementation of marketing plans to reach diverse audiences.

Once plans have been sufficiently revised to match the skills of the hired individual, the major tasks would be to:

- Develop new programs and program materials for diverse audiences
- Facilitate programs
- Train, direct and manage volunteers and others who may assist with program delivery and development
- Oversee and assist with educational publication development
- Assist in the creation and implementation of plans for site development.

#### **Recommendation 2**

Survey and organize the volunteer base.

Currently Farmamerica maintains a list of nearly 300 potential volunteers. Although the volunteers are loosely organized around specific sites on the property, i.e. settlement farm, country church, and the site chair has sometimes provided interpretive information to others who work at the site, little documented information exists on the skills, expertise and availability of individual volunteers. From a programming standpoint, this is a dangerous situation. Standardized programs cannot be maintained without



interpreters trained to deliver them. Interpreters must be available at times that are most convenient for the clientele base if programs are to be viable. Some current volunteers may not wish to participate in new programming efforts, or they may desire to participate in roles that are quite different from those which they currently fill. Information should be collected prior to implementing any new educational program plan. It would be wise for the newly hired educator to collect this information so that the individual has opportunities to interact with volunteers. Surveying the volunteer base will help avoid losing individuals who feel they are not being acknowledged for their past efforts and who may otherwise become disenchanted with the change process.

Current volunteers at Farmamerica need to be specifically asked about their:

- Availability for volunteering
- Existing skills and expertise
- Willingness to attend training
- Interest in helping to develop and design new programs
- Interest in facilitating new programs for which curricula have already been developed
- Interest in working with groups of different ages
- Interest in supporting Farmamerica in areas outside of program development and facilitation.

### **Recommendation 3**

Request additional volunteer and intern assistance for program development and implementation from diverse sources such as Americorps, Mankato State University, Tree Trust. etc.

Trained educational staff is of utmost importance in program delivery. Initially, the professional educator hired will be under great pressure to develop programs, educational materials and publications. Additional assistance is desirable to help with program delivery. Some of the sources listed above can provide low-cost staffing alternatives for periods of a year or more. It would be best if a permanent educator is on board and is intimately involved in the selection of the volunteers and interns so that skills and enthusiasm for working with the pre-established plan can be assessed and encouraged.

### **Recommendation 4**

Within the first year of hiring an educator, modify the current school tour creating two or three distinct interactive programs for elementary school audiences. Gradually raise the program fee so that when a quality program is being delivered the cost is reflective of the greater market.

Of the new programs created, at least one should be designed so that it can be offered year round. The content may need to be modified during the winter months. Multiple program offerings will automatically create opportunities for groups to re-visit Farmamerica, and interactive, experiential programs appeal to school teachers and children. Although many possibilities for creating these programs exist, my suggestion is that any one program utilize a limited number of sites on the property. Rather than an interpretive tour of the facilities, the focus should be on developing knowledge of particular subjects represented at a limited number of sites. This means that the time lane concept and the idea of change in agriculture over time would not be stressed in the initial programming efforts with school groups. This concept can be developed in other programs.

The most well-developed large sites on the property are the settlement farm and the 1920s-30s farm. I would use these as the focal points for two different programs which may be envisioned as follows:

#### **Prairie, settlement farm and country church**

Emphasis on rich prairie soils created through recent glaciation, sod-breaking activities, planting and harvesting, household activities and the early religious tradition of church going. Hands-on activities could include planting, weeding or harvesting crops, making

simple food items, cleaning or clearing areas for planting of a windbreak or making shrub or tree-lined pathways leading to and from the farmstead, or making household items such as a braided rug. Visiting the church could be an optional, time-permitting activity. The church visit could be a culminating community event where the theme is celebration and thankfulness for both bountiful harvests and the fellowship that is developed through religious activity. It would be wise to make the church activity as non-denominational as possible so as to not offend individuals of non-Christian backgrounds.

1920s-30s farm, country school, blacksmith shop or feed mill

Emphasis on diversity in farming, development of farm technology and commodity markets, and education of the rural populace. Hands-on activities could include planting, weeding, and harvesting, caring for resident livestock, inspecting animals for good health, making simple food items, conducting household activities that use "new" technology such as the washing machine. A visit to the country school could convey how schools were not used to educate children about agriculture but rather to help them develop into a literate citizenry. A short school lesson or traditional game may be appropriate to include. A visit to the blacksmith shop or the feed mill could help impress upon the program participants the labor intensive and difficult processes of caring for livestock and transporting goods for the market.

Because the historical sites are not winterized and do not facilitate lengthy winter visits, the programming that takes place during the winter should not focus on them. Still, any winter program should involve some out-of-doors activity. One suggestion is to focus on the following:

Winter agroecology and historic household activities involving agricultural products. Emphasis on differences between winter prairie or idle lands and agricultural lands, agriculture and wildlife winter interactions and household activities involving agricultural products that take place year round. Hands-on activities might involve trips to the prairie and farm fields to see how snow settles differently in the two environments and the impact this has on land use, to look at any differences in wind erosion or to observe signs of wildlife use of fields and prairie. For example, program participants might be asked to count the number of visible seeds or plants in the two environments that would be used by wildlife. They might do a survey of the amount of crop residue remaining in the fields. This could be monitored over time by visiting groups and plotted on charts in the interpretive center. Participants could make observations about how livestock live during the winter months, and these observations could be related to household activities. Interactive household demonstrations could involve butter-making, sausage-making, grain milling, etc. These activities could take place in the interpretive center using the appropriate materials.

With respect to fees for school programs, the current amount of \$1.00 per person charged by Farmamerica is well below the market rate of \$2.50-4.00. I would recommend an immediate increase to \$1.50, even if the old school tour format is used for a limited amount of time. Once new programs are in place, I would recommend raising the fee gradually, perhaps season by season to \$3.00 for a standard program. I do not currently recommend the \$4.00 rate for rural Minnesota. This fee is being assessed by a metropolitan interpretive center with a long history of excellent programming. Any rate structure changes need to be announced well in advance of their implementation so that schools will be able to budget for the changes. Because the new programs will undoubtedly undergo revision and refinement, a gradual change in rates will give school groups time to sample them without feeling they are being overcharged for services that may not be entirely up to standard.

On a note related to quality programming and fees collected, adequate funds and time must be allocated to the education staff for purposes of purchasing and developing program materials.

#### **Recommendation 5**

Within the first year of hiring a full-time educator, create a public tour program to offer on a regular basis.

The tour would supplement, rather than replace the current festival offerings. It may be a modification of the current school tour, but should be pitched to family audiences and adults. As a starter, it could be offered once or twice a month on Saturdays or Sundays. If there is sufficient demand, tours could be offered every weekend. A fee with adult and child rates should be instituted which is in line with the fee being charged for school programs. An "introductory" rate might be tried for a period of time in order to entice people to attend.

My suggestion is to have all the buildings on the property open for the tour and focus on the time lane concept. An interactive hands-on activity should be included at one of the stops. Only one tour guide/interpreter would be necessary for this type of program. The interpreter could start in the interpretive area with a brief overview of the history of Minnesota agriculture. At each stop along the way, appropriate historical and agricultural information would be extended. The interpreter may chose to eventually create a number of different tours, for example, a tour focusing on agricultural production techniques, a tour focusing on domestic life in rural areas or a tour focusing on farm lay-outs and the agricultural landscape. This tour should be a walking tour with sufficient time being allowed at each stop so that program participants are able to briefly explore the different environments. Note that this is not intended to be a living history tour and historical characters are not necessary at the sites.

#### **Recommendation 6**

Continue to hold festival days during the summer, but offer standardized training for all volunteers who will be meeting the public. Gradually increase the amount of interpretation that is done at individual sites during festivals.

Festivals have become somewhat of a Farmamerica tradition. They are an opportunity for Farmamerica volunteers to showcase their skills and enthusiasm to the public. This is of value to the facility in terms of attracting a large number of people to the site who may return for other events. In order to create the best possible public image, volunteers should receive training that, in a standardized way, informs them of the goals and philosophy of the organization. All volunteers should participate in an insiders' tour of the facilities and should be given specialized training in their area of interest. Standardized ways of greeting the public, handling emergencies, dealing with disruptive visitors and informing staff of concerns or problems should be conveyed through the training.

Currently interpretation done during the festival days is informal and somewhat sporadic. Informal interpretation allows visitors to get their questions answered and have an individualized experience. This is generally seen as desirable and informal conversation should be encouraged. In addition to this informal interpretation, more demonstrations and regularly scheduled activities which include interpretation, such as milk testing, ice cream making, school games, horse shoeing, should be encouraged.

Any special guest appearances at festivals need an agricultural focus and an agricultural introduction. For example, an ethnic singing group should not be introduced merely as such, but the contributions of that ethnic group to Minnesota agriculture should be conveyed to the public by means of an emcee or pre-program activity.

### **Recommendation 7**

Implement a comprehensive and continuous evaluation scheme for all educational programs.

A returning and expanding program audience depends on satisfied program participants. Staff cannot objectively evaluate all aspects of programming, and often times, staff are not aware of the specific desires of potential program participants. For these reasons, comprehensive and on-going evaluation should be an integral part of educational programming. At a minimum, leaders of all school groups should be requested to complete post-program evaluations. A suggestion box or guest comments book would offer public program participants opportunities to anonymously evaluate programs and facilities. Another means of evaluating program sites, curricula and programming involves requesting the assistance of university faculty or university students enrolled in education, evaluation or agricultural courses. The proximity of Mankato State University to Farmamerica makes this a feasible option. Subject area specialists from the Minnesota Historical Society, Agriculture in the Classroom and a variety of other organizations should be periodically called on to offer their evaluative input.

### **Recommendation 8**

Develop interpretive center facilities for programming with minimal space being allocated for permanent exhibits.

The persistence of any interpretive program lies in its dynamic basis, not in static display areas. People will return to Farmamerica to attend new programs and view the changing seasons at the farm sites much more often than they will to view a static display in the interpretive center. Because of this, costly static exhibits should be kept to a minimum and more space should be reserved for temporary exhibits, periodic demonstrations, products of programs at Farmamerica, and for programming activities themselves.

It is likely that nearly every program will begin and or end at the interpretive center. This makes the center an ideal place for presenting capsule views of the history of Minnesota agriculture or for depicting how Minnesota agriculture relates to U.S. and world agriculture. Although some of this may be done through storyboards and exhibits, another idea is to develop a short introductory video to be shown at the center. The challenge of an introduction is to entice the visitor to move out of the central display area and engage in other activities on the property.

### **Recommendation 9**

Create quality promotional and educational materials to be used in marketing programs and as program support.

The colorful brochure currently used by Farmamerica offers a nice introduction to people unfamiliar with the facility. As the educational program grows, more written materials will be necessary. Membership brochures, materials detailing methods for program registration, pre-program briefings and post-program follow-up activities are just some of the written materials offered to interested parties by many interpretive centers. A newsletter created with input from staff and volunteers will be critical to inform members of new developments on site, relay the programming calendar and solicit donations, among other things. Most of these publications can be created in-house and need not be printed in multi-colors on glossy paper. Quality materials involve presenting well-researched and documented information and using creative layout techniques. The education staff should be integrally involved in the development of any such materials.

The internet is an educational and promotional tool that can aid program development. Most organizations today are finding that a web site is a valuable resource. As time permits, Farmamerica

should develop a web site that conveys information about programs and gives patrons access to pre and post program activities and other educational resources.

#### **Recommendation 10**

On a gradual basis, improve and develop site characteristics for better interpretive programming.

Great care has gone into the placement, construction and interior design of many of the individual sites at Farmamerica. However, many improvements can be made from the programming perspective. First and foremost Farmamerica must decide the extent to which individual sites are going to represent past historic places and events and the extent to which change, modernity and the future will be represented at these historic sites. For example, is the schoolhouse only going to represent school days of the past, or will it be used as an active learning center to understand not only how education shaped rural Minnesota, but to create an awareness of more modern links between education and agriculture? If it will be displayed as a symbol of the past but with modern usage, many more interpretive exhibits and programs could be held there. An exhibit could focus on how increases in opportunities for education relate to decreases in the number of farmers, or it could focus on agricultural publications and their importance in educating the rural populace, or perhaps on the role of the extension service as a rural education tool. In the school yard, a school garden might be developed, an agricultural recreation area might be created or a display area for school program projects, perhaps scarecrows, carved vegetables, etc. might be added.

In short, each interpretive area should be re-examined for use from a programming perspective and plans made for any needed changes. Changes in site characteristics should be reflective of Farmamerica's general interpretive philosophy and should be consistent with messages conveyed to visitors through programs.

To begin this re-examination process, several areas where inconsistencies exist or there is little site interpretation are pointed out below. This small sample represents just a fraction of the numerous site developments that can be built into a long-term program plan.

Prairie: Sumac is now growing in the Farmamerica prairie. This is an invasive savanna plant and should be removed from the prairie area. Little interpretation of the prairie and its importance to the kind of agriculture Minnesota was able to develop currently takes place.

Settlement farm: In 1999 the crop that was observed in the fields on the approach road to this site was soybeans. Soybeans were not a part of Minnesota agriculture until the mid-twentieth century. Although this point can be understood through interpretation, no interpretive signage exists. The functions of some of the buildings are not easily discerned by visitors, i.e. the root cellar is empty, the newly constructed building is also empty and without signage. The garden at the site appears removed and off-limits to visitors.

Church: There appears to be very little interpretation done at the church. This structure is a good representation of rural development and change. Signage could indicate the time periods represented in the interior of the church. Exhibits could trace the increases and decreases in rural churches across Minnesota. Also, the church yard needs development, perhaps with gardens, an information kiosk or other agricultural and interpretive structures.

Feed Mill: Currently this structure is not developed as a feed mill. The poster boards inside have little to do with feed milling and they do not interpret the period in which the



mill was used. Areas around the mill need development with signage. Outside display items such as feed trucks or an array of feed bags from various periods of time would be helpful.

#### **Recommendation 11**

Gradually expand school and public programs to offer a diverse range of agriculturally-related subject matter, including but not limited to history, anthropology, political science, social science, agricultural science, natural resource management and sustainable development.

Expansion should not take place within the first year or two of hiring a single educator. The expansion phase will be best carried out on a gradual basis with a substantial amount of pre-expansion planning, curriculum development and pre-testing of the curriculum. Once the education staff feels that the base school and public programs are high quality and being well-received, plans for expansion can progress.

The most typical audience tapped for school programs is the elementary age one. Farmamerica may wish to follow the models provided by other interpretive centers for reaching this audience. However, the exact nature of the expansion will depend on the skills of the educator or education staff hired. Either a graduated curriculum or subject area based curriculum may be developed. Programs for meeting school requirements in a variety of subject areas may capture broader attention, yet, the ability of the education staff to facilitate diverse programs must be considered. If the hired educator is more science-oriented, the educational program plan may become a science-based one, likewise if a social scientist or person skilled in another discipline is hired.

Public program expansion comes in many forms and may include weekend workshops or mini-series based on themes such as pioneer cookery, heritage gardens, or gardens and landscaping. Farmamerica may wish to enter the sustainable agriculture realm and host workshops on whole farm planning, rotational grazing or erosion control structures and conservation tillage methods. Public programs may also include summer or school break children's camps, inclusion on larger scale agricultural tours or other special group programs. Inclusion of service learning projects, where a group adopts a project having broader community impact, is another feasible option. Demonstration gardens created and staffed periodically with master gardeners, or gardens maintained by new immigrants or community residents are possible. The nature of the expansion will be highly dependent on the interests of the Farmamerica staff and volunteer corps.

#### **Recommendation 12**

Consider hiring or otherwise obtaining a farmer or farm family to live on site and manage farm operations.

An on-site farm manager who is also interested in sharing knowledge and information with the public would be a great asset to Farmamerica. A person or couple hired specifically to manage the Farmamerica property would be able to work with program staff to ensure that site development plans are being carried out in a timely and desirable manner. On-site farmers can serve as valuable resource people for educators, explaining and demonstrating practical aspects of program content. Additionally, the presence of farmers on the property can serve as a security measure for safeguarding facilities.

The arrangement to have a farmer live on the property can be handled in a number of ways. Nerstrand Big Woods State Park leases farmland to a couple who then derive profit from the livestock they raise. The farm at Wilder Forest is operated by a salaried farmer who manages operations and also is integrally involved in programming. Dodge Nature Center has a full time salaried farm manager who also engages in programming, but she does not live on the property. Arrangements to have a farmer or farm family

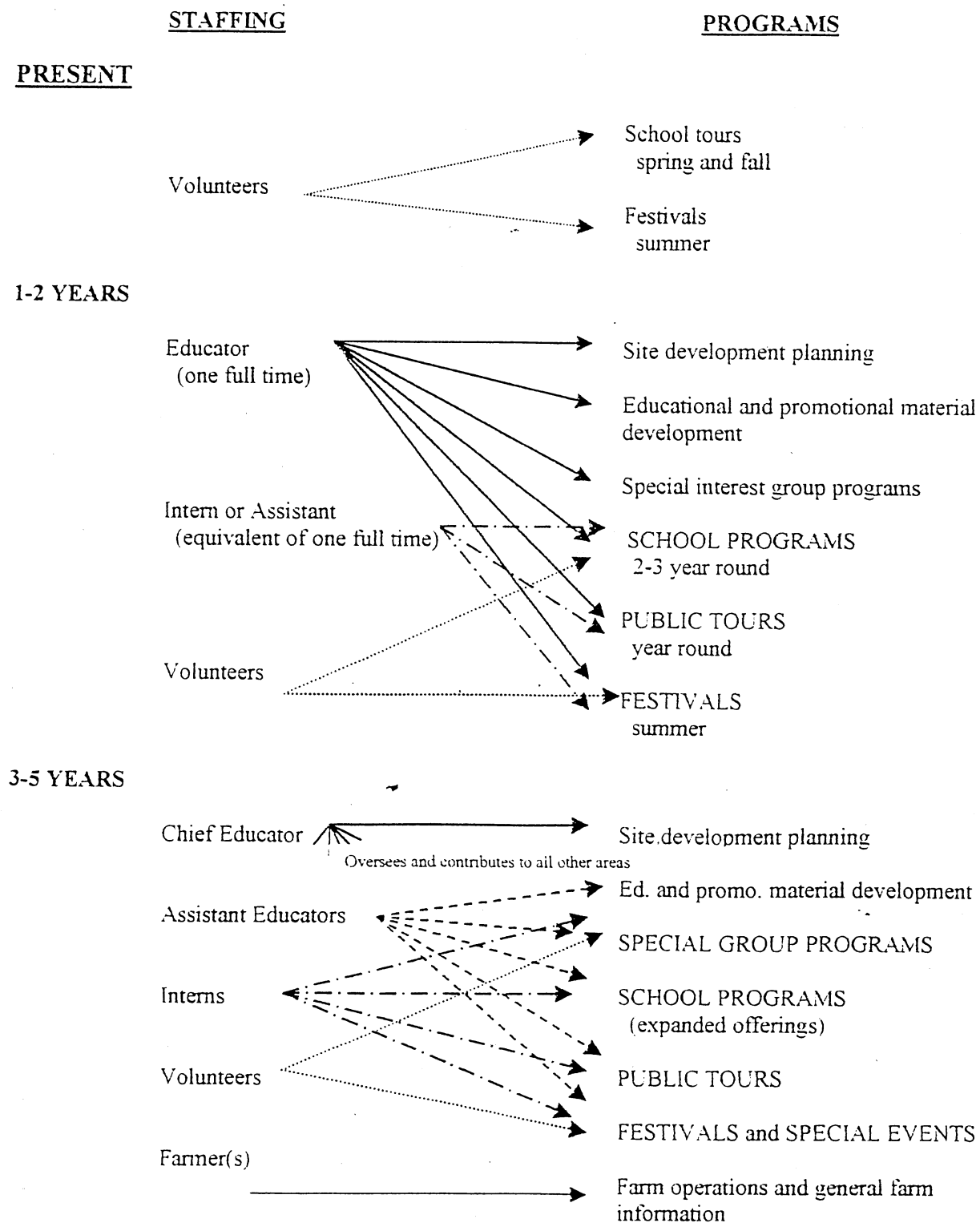
live on the property will be partially dependent on other arrangements made to hire and house interns or long-term service volunteers.

**Recommendation 13**

Increase professional education staff size according to needs determined by the success of programs.

The beginnings of program development need a strong leader who is able to conceive program ideas and implement his or her program philosophy. However, one educator, even with the help of interns, volunteers or other part-time staff, cannot continue to expand programming efforts. More educational staff must be hired as the educational program is strengthened and expanded. Currently, centers serving approximately 20,000 school children a year employ 3-4 professional education staff and a similar number of interns. One staff person cannot be expected to offer more than three programs in any given day, and if the majority of time is spent programming, there will be little time available for program development; therefore, the needs of the programming staff should be assessed on a regular basis.

## Schematic Diagram of a Potential Staffing and Program Plan for Farmamerica



CAPITAL letters indicate primary areas of emphasis

## APPENDIX

### Ideas for Program Formats, Curricula and Use of Sites at Farmamerica

The following list of ideas represents just a few of the limitless number of ways programs can be developed at Farmamerica. Many other good ideas can be found in files of materials collected from field site visits and in the numerous curricula that address environmental and historical issues. Ideas are listed in alphabetical order.

#### 1) Agroforestry

Shelterbelts, windbreaks, alley cropping and understory cropping can all be examined through agroforestry programs. The windbreaks at Farmamerica can serve as initial interpretation points. Wildlife and tree lines, erosion control and soil properties are some topics to include. Program participants might help in the construction of new structures and demonstration areas.

#### 2) Camps

Camps for youth can be designed for the summer, as well as winter and spring break periods. A camp can extend over various periods of time; one to two days or a week or more. Themes can be developed for any camp experience- dairy camp, animal camp and 19<sup>th</sup> century camp are examples. Creative titles and a mix of program formats will help make any camp successful.

#### 3) Crop Maze

Create a maze or mazes near major interpretive sites that can be used as recreational activities and educational tools. Mazes can be created using plantings of small grain crops for small children, corn or shrubs such as hazelnuts for larger children and adults or even hay bales. Getting through the maze is a self-directed activity, however, if used in conjunction with an educational program, participants can be asked to make observations about the crops, crop pests, growing conditions, etc. during their maze walk. At Farmamerica, ideal places for mazes would be near the schoolhouse, near the settlement farm or near the interpretive facility. A permanent maze of hazelnuts situated near the interpretive facility would provide an opportunity to demonstrate growing an alternative crop and allow short term visitors to engage in an experiential activity without visiting the historic sites. Interpretive signage could urge maze-goers to observe agricultural points of interest. A corn maze is grown yearly at Goodhue, MN, and a permanent hazel maze is growing at Badgersett Research Farm, Canton, MN.

#### 4) Demonstration Day

A concept popular in 4-H programs of the past was the demonstration day. During a demonstration day, presenters illustrate the how-to of making something and conclude their presentations with question and answer periods, close-up views of products or product samples. This idea could be utilized in several different ways at Farmamerica. A demonstration day, where demonstrators of home arts or domestic chores are positioned at various sites, could be offered for area schools. Alternatively, a demonstration day contest could be held where, for example, butter churners, sausage makers or others are assembled to make their goods and be judged on their quality. Demonstration days could be held at various sites around Farmamerica and offered as a program series taking place over a period of several weeks.

#### 5) Demonstration Gardens

Many types of demonstration gardens can be envisioned for possible inclusion at Farmamerica. Heritage seed varieties, ethnic crops from old or new immigrant groups, prairie plants, ornamental landscapes using texture or color and native wildflowers, among many other things could be planted in demonstration plots. Special demonstration or tour days where people knowledgeable about the garden or gardens on display are on site to field questions are one way of conveying information to the public.

#### 6) Ethnic Diversity, Farmscapes and Agricultural Production

Immigrants to Minnesota have come from many different ethnic backgrounds. Ethnic differences can be used as a basis to compare and contrast different farm lay-outs, the crops and animals chosen for production and production techniques. For example, early immigrants to Waseca County included primarily Irish, Germans and Scandinavians. Demographically they settled in clusters and their production techniques, which sometimes can still be observed, have considerable differences.

Conversations with senior residents of the area can help elucidate cultural-specific practices. New immigrant groups such as the Latinos or Somalis may be interested in displaying their gardening or farming skills at Farmamerica. The idea used by Wilder Forest to create a day in the life of an immigrant farm worker might be modified for use. Short, one to two hour programs can provide a glimpse of migrant worker life or life in the early days of immigration to Minnesota.

#### 7) Field Days

In agriculture the concept of field days is widely understood and used. Often field days are held to bring a number of experts on one topic to a site for a short amount of time. Field days could be held on the Farmamerica property in conjunction with a number of topics. For example, if a heritage garden is planted, representatives from seed saving organizations, heritage gardening experts, agronomists specializing in genetic issues of horticultural crops and others could be invited to speak and lead tours illustrating pertinent points.

#### 8) Food Processing

A large number of interactive programs could be developed around the food processing theme. Just a few of these include:

butter churning

ice cream making

ice milk making (using empty soup cans partially filled with milk, sugar and vanilla)

sausage stuffing

bread making

tortilla making

fun with eggs

stone soup

pickle making

jam/jelly making

food drying (jerky, fruits and herbs)

apple cider making (dependent on having an orchard)

honey making (dependent on having bee hives)

#### 9) Food Processing and Parties

A nice compliment to a food processing program is to have a family or larger group barbeque or party. A day long program or a week long camp might conclude with a food production day where the finale is a party where families or other special guests are invited to join the program participants for a feast.

#### 10) Garden or Farm Cart

Take a wheelbarrow or other small cart and fill it with tools, implements or supplies used for specific tasks. Place the cart in the appropriate place, i.e. in the garden or in an animal barn, and station an interpreter near it to interpret the items and how they are used to the public.

#### 11) Harvest Activities

Harvest activities are great, especially when combined with making food items that can be immediately consumed. Farmamerica may want to consider starting more perennial crops such as a maple grove for



syrup, nut trees or fruit trees. Maple syrup, apple cider and honey are the basis of several popular interpretive programs at centers across Minnesota. Harvest programs are equally feasible with garden and field crops. Stone soup allows for the collecting numerous vegetables which are then thrown into a pot for a tasty soup. Grinding corn into meal or wheat into flour for a baking activity can be easily done. Creating pumpkin soup or having a pumpkin carving contest are fun activities. Carving activities can be extended to an array of vegetables with discussion about unique vegetable properties included. An exhibit fair can be a method of teaching people to identify superior produce. If a number of small plots were planted with similar seeds, program participants can be assigned to a plot and be asked to pick or otherwise identify, i.e. with flagging tape, the best item. At the exhibit fair, not only the crop would be judged but knowledge about the growing environment would be tested. Alternatively, the fair could become a roving "best produce tour" of the plots to view the best produce and collectively discuss why things grow differently in different places.

#### 12) Integrated/Mixed Farming Exhibit

Many agricultural systems around the world are integrative, defined here as meaning that they stress complimentary aspects of growing different types of plants and animals together. Often integrated farming is viewed as an intensive, space-saving system. In Minnesota, several examples of integrated systems are present: ginseng under sugar maples, alley crops in hybrid poplar plantations, corn fields and hogs or corn fields, hogs and food waste. An exhibit or demonstration area for this type of agriculture would be a welcome addition to show some diversity in farming methods.

#### 13) Market Gardens

A program idea that may interest youth nearing or at the income earning age or may interest new immigrant groups is the idea of market gardening. FarmAmerica might view this as an opportunity to have a market garden complex on the property. The idea used by Wilder Forest is that gardeners pay a small fee for spring tilling of their land and general maintenance. Rules of use for garden space are established by the hosting agency in conjunction with the gardeners. Gardeners raise produce that is marketed locally. Income generated from produce sales is retained by the gardeners. Many variations on this set-up can be envisioned.

#### 14) Monitoring

The Land Stewardship Project's "Monitoring Toolbox" outlines procedures for studying farm health through monitoring birds, frogs, water quality and other factors on the farm. Programs that include monitoring aspects also teach biological identification skills. Although results of monitoring efforts by different groups may not be totally accurate, charts and graphs plotting the data can give visitors some idea of the ecological health of FarmAmerica by showing the abundance and diversity of organisms present. Monitoring measurements can be a key aspect of programs on many topical areas.

#### 15) Music and Agriculture

Several different forms of American music originated in rural areas. Programs can be developed with guest musicians who help tell stories of the roots of their musical traditions and how they may relate to agricultural cycles. Harvest dances and barn-raising festivals are just two such events. On a more modern theme, some farmers have shown how music increases milk production in dairy cattle and even how some trees and other plants respond to musical stimulation. Programs could be developed with test and control plots where music is used as a growth aid. Participants could document results on charts displayed in public areas.

#### 16) Observation Stations

Using portable or stationary chairs, or having participants sit on the ground to make observations from their posts is another outdoor educational activity. For example, with chairs in a corn field participants might be asked to observe the number and diversity of insects or other animals landing on plants over a

specified time period. Observation stations can be used for teaching about ecological diversity as well. One program group might have participants sit in several different environments to listen or look for the types of animals that frequent that area.

#### 17) Packaged Programs (classroom curriculum coupled with field visits)

The Minnesota Landscape Arboretum has developed a package of plant science-based lessons for elementary students that couple in-class curricula with visits to the arboretum. Teachers attend a workshop that familiarizes them with the curriculum and the nature of the field visit. A similar package of agriculture or rural lifestyle curricula and field trips could be developed at Farmamerica. One advantage of this type of programming is that it is not a one shot approach to education.

#### 18) Pest Management

Similar to monitoring programs, a pest management or pest awareness program could be developed that allows program participants opportunities to learn about entomology, the value of beneficial insects and the damage problem insects and other pests cause. The impact of different insects and pests on various landscapes can be stressed by collecting from farm fields, gardens and natural areas.

#### 19) Phenology as an Organizing Concept

Attention to phenology, or seasonal changes in living organisms, creates many opportunities for programming and can serve to bring visitors back to the interpretive center for repeated visits. Program curriculum might be set up around themes such as spring flowering or birth and late summer harvesting or slaughter. A spring/summer flowering program could focus in on corn tassles, de-tassling and its importance to seed production, whereas a late summer/fall program could entail a sweet corn or popcorn party. Demonstration gardens can be established which have the same crop planted at different dates throughout the growing season so that program participants can observe how seasonal weather changes affect plant growth and maturity.

#### 20) Plant and Animal Care

A number of programs with varied formats can be created around the themes of crop production and animal husbandry. Seed planting and weeding of crops, as well as care of animals can be made fun and educational. Often these activities work best with small groups or pairs of individuals who are given specific tasks. Gardens or field areas may be divided into small plots with each group of program participants recording observations in the plot. Individual animals can be cared for by pairs of students. Observations might be in the form of drawings or growth statistics. Records could be posted in the learning center so that each new group of participants would be readily able to view them. Discussion may revolve around the reasons for varied growth and health. The importance of plant and animal health may be stressed. A weeding activity might ask participants to identify a certain number of weeds by name, or a contest may be established to see which group of weeders is able to identify the greatest number of weeds. Questions about where the most weeds grow and why they grow there are appropriate. Programs dealing with the care of animals might ask participants to observe how an animal's ears, nose or coat feels when the animal is healthy, sick or at different times of the year. Identifying what animals eat in a pasture, observing different grazing patterns for different animals and asking questions that force participants to think about animal form, structure and physiology may be included in the program.

#### 21) Plays, Puppet Shows and Other Entertainment

A mini-series could be developed for youth with the final product being a play, a puppet show or another form of entertainment. Alternatively, area schoolchildren might be enticed to study agriculture in the classroom with the culmination of their studies being a field trip and play presented at Farmamerica. Many variations on this theme are possible.

## 22) Re-use and Recycling on the Farm

This modern theme can be used to examine farming systems of the past, present and future. Questions about how farmers of the past re-used or recycled implements and tools, straw or other crop residues or animal products can be compared and contrasted with present methods. Ideas of using green manure or compost can also be addressed.

## 23) Scavenger Hunt

A scavenger hunt is a popular activity, especially for upper elementary children. An educational hunt should include components that are asking for identification of crops, pests, animal-related items, landscape types and sources of agricultural information. The hunt encourages team-building and collective decision-making. Prizes might include seeds, plants or food items that encourage participants to think about agriculture.

## 24) Service Learning

This approach has previously been mentioned but is included in the appendix so that it will not be overlooked. The service learning approach to education couples formal education with nonformal community service opportunities. Often a subject is studied and then a community service project on that same subject is undertaken by the students. Service learning projects often have distinct ending points, but this need not be the case. Projects can be extended over long periods using the same or different groups of students. Given that Farmamerica is a nonprofit organization, many projects could be conceived for community benefit; ornamental or vegetable gardens, a sweet corn project for a corn feed to support a local cause or a broiler chicken project to illustrate chemical-free food production are just three such ideas.

## 25) Soils

A number of interesting hands-on programs can be developed around soils. Micronutrient levels of potassium, nitrogen and phosphorus can be measured. Soil physical properties can be examined in soils coming from different locations. The influence of land use practices on soils and vegetation can be studied. Water holding capacity and infiltration can also be examined.

## 26) Women in Agriculture/Agricultural History

In the past the division of labor between the sexes was quite distinct. Programs which focus on these distinctions through guided tours and interactive activities may appeal to youth and adult audiences. One idea is to include an activity where program participants make a daily labor calendar, outlining the way individuals allocate time to various tasks. Labor calendars of today could be compared with labor calendars of the past. The reasons for the differences in the allocation of time could be discussed.

## 27) 4-H, Scout or Other Youth Groups

Special programs for youth groups are a niche market that Farmamerica may want to exploit. Many times these groups are looking for specific ways to fulfill project or badge requirements. Programs can be developed that meet these needs.

## Use of Specific Sites on the Farmamerica Property

### 1) Country Schoolhouse and Agricultural Education

The schoolhouse on the Farmamerica property is an ideal setting for talking about educational traditions in the U.S. and Minnesota. Although schools were not constructed to educate people about agriculture and few agricultural events took place at them, they are important sites for enabling the rural populace to become literate and educate itself about new agricultural technologies and techniques. Displays and programs could be developed around issues such as the growth of the agricultural press and agricultural journalism. Working with photocopied articles from old agricultural journals, participants could be asked

to create an updated article using the same topic or using subject matter they observed during their visit to Farmamerica. Alternatively, a number of schools around the state are now developing school gardens for children to learn about food production and marketing skills. A local school class might be able to adopt a garden at the Farmamerica school grounds, creating a site that has symbols of both the past and present educational trends.

## 2) Farm Pond

A trail providing access to the pond on the Farmamerica site would open numerous opportunities for aquatic studies. Water quality, aquatic invertebrates, aquatic macrophytes and aquatic fur bearers such as muskrats are just a few of the subjects that could be addressed. The importance of ponds for livestock, for wildlife and as groundwater filtration entities can be examined. Although the pond on the Farmamerica property is most likely not a prairie pothole, the importance of prairie potholes as wetland resources could be addressed.

## 3) Feed Mill

The feed mill is an ideal site for students to learn about weights and measurements, practice mathematics and discover the secrets of feed rations. Interactive programs could help mix feed for resident livestock. Program participants can practice identifying feed items, using scales and standardized measuring devices such as bushels and pecks and mixing feeds. Small batches of feed can be mixed to allow for maximum participation. The role of the feed mill in rural communities can be discussed. Introducing ideas such as market commodities, commodity pricing and profit for farmers and feed mill operators can take place. The feed mill would be an ideal place for late fall or early spring programs when there is little in the area fields to do. A challenge would be to have adequate heat in the building, perhaps with space heaters, so that programming could actually take place at the mill itself.